

10620551\_CLS1  
Most Frequently Occurring Classifications of Patents Returned  
From A Search of 10620551 on April 03, 2006

Original Classifications

8	381/94.3
5	704/233
4	379/406.01
3	704/225
3	704/226
2	375/148
2	379/406.05
2	381/66
2	381/92

Cross-Reference Classifications

13	704/226
7	704/225
4	379/406.01
4	381/94.2
4	381/94.3
4	704/233
3	375/285
3	375/346
3	379/406.05
3	379/406.06
3	379/406.07
3	381/317
3	455/296
3	455/306
2	370/286
2	375/350
2	379/388.02
2	379/406.02
2	379/406.03
2	379/406.08
2	379/406.09
2	381/111
2	381/320
2	455/63.1
2	704/200.1
2	704/205
2	704/228

Combined Classifications

16	704/226
12	381/94.3
10	704/225
9	704/233
8	379/406.01
5	379/406.05
4	381/94.2
3	375/148
3	375/285
3	375/346
3	379/406.03
3	379/406.06
3	379/406.07
3	381/317
3	381/66
3	455/296
3	455/306
3	455/63.1

10620551\_CLS1

3 704/228  
2 370/286  
2 375/350  
2 379/388.02  
2 379/406.02  
2 379/406.04  
2 379/406.08  
2 379/406.09  
2 381/111  
2 381/320  
2 381/92  
2 381/94.1  
2 455/570  
2 704/200.1  
2 704/205  
2 704/219  
2 704/224  
2 704/227

## 10620551\_CLSTITLES1

Titles of Most Frequently Occurring Classifications of Patents Returned  
From A Search of 10620551 on April 03, 2006

- 16 704/226 (3 OR, 13 XR)  
Class 704 : DATA PROCESSING: SPEECH SIGNAL PROCESSING,  
LINGUISTICS, LANGUAGE TRANSLATION, AND AUDIO  
COMPRESSION/DECOMPRESSION  
704/200 SPEECH SIGNAL PROCESSING  
704/201 .For storage or transmission  
704/226 ..Noise
- 12 381/94.3 (8 OR, 4 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/94.1 NOISE OR DISTORTION SUPPRESSION  
381/94.2 .Spectral adjustment  
381/94.3 ..In multiple frequency bands
- 10 704/225 (3 OR, 7 XR)  
Class 704 : DATA PROCESSING: SPEECH SIGNAL PROCESSING,  
LINGUISTICS, LANGUAGE TRANSLATION, AND AUDIO  
COMPRESSION/DECOMPRESSION  
704/200 SPEECH SIGNAL PROCESSING  
704/201 .For storage or transmission  
704/225 ..Gain control
- 9 704/233 (5 OR, 4 XR)  
Class 704 : DATA PROCESSING: SPEECH SIGNAL PROCESSING,  
LINGUISTICS, LANGUAGE TRANSLATION, AND AUDIO  
COMPRESSION/DECOMPRESSION  
704/200 SPEECH SIGNAL PROCESSING  
704/231 .Recognition  
704/233 ..Detect speech in noise
- 8 379/406.01 (4 OR, 4 XR)  
Class 379 : TELEPHONIC COMMUNICATIONS  
379/406.01 ECHO CANCELLATION OR SUPPRESSION
- 5 379/406.05 (2 OR, 3 XR)  
Class 379 : TELEPHONIC COMMUNICATIONS  
379/406.01 ECHO CANCELLATION OR SUPPRESSION  
379/406.05 .Residual echo cancellation
- 4 381/94.2 (0 OR, 4 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/94.1 NOISE OR DISTORTION SUPPRESSION  
381/94.2 .Spectral adjustment
- 3 375/148 (2 OR, 1 XR)  
Class 375 : PULSE OR DIGITAL COMMUNICATIONS  
375/130 SPREAD SPECTRUM  
375/140 .Direct sequence  
375/147 ..Receiver  
375/148 ...Multi-receiver or interference cancellation
- 3 375/285 (0 OR, 3 XR)  
Class 375 : PULSE OR DIGITAL COMMUNICATIONS  
375/259 SYSTEMS USING ALTERNATING OR PULSATING CURRENT  
375/285 .Antinoise or distortion

10620551\_CLSTITLES1

- 3 375/346 (0 OR, 3 XR)  
 Class 375 : PULSE OR DIGITAL COMMUNICATIONS  
 375/316 RECEIVERS  
 375/346 .Interference or noise reduction
  
- 3 379/406.03 (1 OR, 2 XR)  
 Class 379 : TELEPHONIC COMMUNICATIONS  
 379/406.01 ECHO CANCELLATION OR SUPPRESSION  
 379/406.02 .Combined diverse function  
 379/406.03 ..Additional signal enhancement (e.g., voice processing or recognition)
  
- 3 379/406.06 (0 OR, 3 XR)  
 Class 379 : TELEPHONIC COMMUNICATIONS  
 379/406.01 ECHO CANCELLATION OR SUPPRESSION  
 379/406.06 .Using digital signal processing
  
- 3 379/406.07 (0 OR, 3 XR)  
 Class 379 : TELEPHONIC COMMUNICATIONS  
 379/406.01 ECHO CANCELLATION OR SUPPRESSION  
 379/406.06 .Using digital signal processing  
 379/406.07 ..Using attenuator
  
- 3 381/317 (0 OR, 3 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/312 HEARING AIDS, ELECTRICAL  
 381/317 .Noise compensation circuit
  
- 3 381/66 (2 OR, 1 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/66 DEREVERBERATORS
  
- 3 455/296 (0 OR, 3 XR)  
 Class 455 : TELECOMMUNICATIONS  
 455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY  
 CONVERTER  
 455/296 .Noise or interference elimination
  
- 3 455/306 (0 OR, 3 XR)  
 Class 455 : TELECOMMUNICATIONS  
 455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY  
 CONVERTER  
 455/296 .Noise or interference elimination  
 455/303 ..Using plural separate signal paths  
 455/305 ...With balancing or neutralizing  
 455/306 ....Filter in at least one path
  
- 3 455/63.1 (1 OR, 2 XR)  
 Class 455 : TELECOMMUNICATIONS  
 455/39 TRANSMITTER AND RECEIVER AT SEPARATE STATIONS  
 455/63.1 .Distortion, noise, or other interference prevention, reduction, or compensation
  
- 3 704/228 (1 OR, 2 XR)  
 Class 704 : DATA PROCESSING: SPEECH SIGNAL PROCESSING,  
 LINGUISTICS, LANGUAGE TRANSLATION, AND AUDIO  
 COMPRESSION/DECOMPRESSION  
 704/200 SPEECH SIGNAL PROCESSING  
 704/201 .For storage or transmission

## 10620551\_CLSTITLES1

- 704/226 ..Noise
- 704/228 ...Post-transmission
- 2 370/286 (0 OR, 2 XR)
  - Class 370 : MULTIPLEX COMMUNICATIONS
  - 370/276 DUPLEX
  - 370/282 .Transmit/receive interaction control
  - 370/286 ..Echo suppression or cancellation
- 2 375/350 (0 OR, 2 XR)
  - Class 375 : PULSE OR DIGITAL COMMUNICATIONS
  - 375/316 RECEIVERS
  - 375/346 .Interference or noise reduction
  - 375/350 ..By filtering (e.g., digital)
- 2 379/388.02 (0 OR, 2 XR)
  - Class 379 : TELEPHONIC COMMUNICATIONS
  - 379/387.01 SUBSTATION OR TERMINAL CIRCUITRY
  - 379/388.01 .For loudspeaking terminal
  - 379/388.02 ..Speakerphone with build-in microphone
- 2 379/406.02 (0 OR, 2 XR)
  - Class 379 : TELEPHONIC COMMUNICATIONS
  - 379/406.01 ECHO CANCELLATION OR SUPPRESSION
  - 379/406.02 .Combined diverse function
- 2 379/406.04 (1 OR, 1 XR)
  - Class 379 : TELEPHONIC COMMUNICATIONS
  - 379/406.01 ECHO CANCELLATION OR SUPPRESSION
  - 379/406.04 .Disable or inhibit function
- 2 379/406.08 (0 OR, 2 XR)
  - Class 379 : TELEPHONIC COMMUNICATIONS
  - 379/406.01 ECHO CANCELLATION OR SUPPRESSION
  - 379/406.06 .Using digital signal processing
  - 379/406.08 ..Adaptive filtering
- 2 379/406.09 (0 OR, 2 XR)
  - Class 379 : TELEPHONIC COMMUNICATIONS
  - 379/406.01 ECHO CANCELLATION OR SUPPRESSION
  - 379/406.06 .Using digital signal processing
  - 379/406.08 ..Adaptive filtering
  - 379/406.09 ...Least mean squares (LMS) algorithm
- 2 381/111 (0 OR, 2 XR)
  - Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES
  - 381/111 CIRCUITRY COMBINED WITH SPECIFIC TYPE MICROPHONE OR LOUDSPEAKER
- 2 381/320 (0 OR, 2 XR)
  - Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES
  - 381/312 HEARING AIDS, ELECTRICAL
  - 381/320 .Spectral control
- 2 381/92 (2 OR, 0 XR)
  - Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES
  - 381/92 DIRECTIVE CIRCUITS FOR MICROPHONES
- 2 381/94.1 (1 OR, 1 XR)
  - Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS

10620551\_CLSTITLES1

AND DEVICES

381/94.1 NOISE OR DISTORTION SUPPRESSION

- 2 455/570 (1 OR, 1 XR)
  - Class 455 : TELECOMMUNICATIONS
  - 455/73 TRANSMITTER AND RECEIVER AT SAME STATION (E.G.,  
TRANSCIVER)
  - 455/550.1 .Radiotelephone equipment detail
  - 455/569.1 ..Hands-free or loudspeaking arrangement
  - 455/570 ...Noise suppression or echo cancellation
- 2 704/200.1 (0 OR, 2 XR)
  - Class 704 : DATA PROCESSING: SPEECH SIGNAL PROCESSING,  
LINGUISTICS, LANGUAGE TRANSLATION, AND AUDIO  
COMPRESSION/DECOMPRESSION
  - 704/200 SPEECH SIGNAL PROCESSING
  - 704/200.1 .Psychoacoustic
- 2 704/205 (0 OR, 2 XR)
  - Class 704 : DATA PROCESSING: SPEECH SIGNAL PROCESSING,  
LINGUISTICS, LANGUAGE TRANSLATION, AND AUDIO  
COMPRESSION/DECOMPRESSION
  - 704/200 SPEECH SIGNAL PROCESSING
  - 704/201 .For storage or transmission
  - 704/205 ..Frequency
- 2 704/219 (1 OR, 1 XR)
  - Class 704 : DATA PROCESSING: SPEECH SIGNAL PROCESSING,  
LINGUISTICS, LANGUAGE TRANSLATION, AND AUDIO  
COMPRESSION/DECOMPRESSION
  - 704/200 SPEECH SIGNAL PROCESSING
  - 704/201 .For storage or transmission
  - 704/219 ..Linear prediction
- 2 704/224 (1 OR, 1 XR)
  - Class 704 : DATA PROCESSING: SPEECH SIGNAL PROCESSING,  
LINGUISTICS, LANGUAGE TRANSLATION, AND AUDIO  
COMPRESSION/DECOMPRESSION
  - 704/200 SPEECH SIGNAL PROCESSING
  - 704/201 .For storage or transmission
  - 704/224 ..Normalizing
- 2 704/227 (1 OR, 1 XR)
  - Class 704 : DATA PROCESSING: SPEECH SIGNAL PROCESSING,  
LINGUISTICS, LANGUAGE TRANSLATION, AND AUDIO  
COMPRESSION/DECOMPRESSION
  - 704/200 SPEECH SIGNAL PROCESSING
  - 704/201 .For storage or transmission
  - 704/226 ..Noise
  - 704/227 ...Pretransmission